Sub B2 9. (Amended) A method for inducing a protective immune response to a hantavirus protein in a mammal comprising

(i) preparing a nucleic acid encoding an M gene segment protein comprising the sequence set forth in SEQ ID NO:1, which sequence includes at least one hantavirus protein antigenic determinant which is operatively linked to a promoter operative in cells of a mammal;

(ii) coating the nucleic acid in (i) onto inert particles suitable for carrying a polynucleotide stably coated thereon;

Q3 (iii) accelerating the particles of (ii) into epidermal cells of the mammal in vivo; and

(iv) detecting an immune response against viral infection and disease caused by viral infection resulting from (iii) in said mammal upon exposure to a hantavirus.

10. (Amended) The method ~~according to claim 9~~ wherein the particles are gold particles.

Sub B4 16. (Amended) The method according to claim 13 wherein said nucleic acid comprises the sequence set forth in SEQ ID NO:1 and SEQ ID NO:2.

Q4 17. (Amended) A method for inducing a protective immune response to a hantavirus infection in a mammal comprising

(i) preparing a nucleic acid encoding an M gene segment protein comprising the sequence set forth in SEQ ID NO:1, which sequence includes at least one antigenic determinant of a first hantavirus protein operatively linked to a promoter operative in cells of a mammal;

(ii) coating the nucleic acid in (i) onto inert particles suitable for carrying a polynucleotide stably coated thereon;

(iii) accelerating the particles of (ii) into epidermal cells of the mammal in vivo; and

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(iv) detecting an immune protective immune response against viral infection and disease caused by viral infection resulting from (iii) in said mammal upon an exposure to a second hantavirus.

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26. (Amended) A vaccine for protection against infection by more than one hantavirus comprising a composition of matter comprising a carrier particle having one or more DNA sequences coated onto the promoter operative in the cells of a mammal and a protein coding region coding for an M gene segment protein comprising the sequence set forth in SEQ ID NO:1, which sequence includes at least one antigenic determinant of a hantavirus protein said hantavirus selected from the group consisting of SEOV virus, Dobrava virus, Pumuula virus, Hantaan virus, Sin Nombre virus, Black Creek Canal virus, Bayou virus, New York virus, Andes virus, and Laguna Negra virus.

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27. (Amended) The vaccine of claim 26, further comprising a composition comprising a carrier particle having one or more DNA sequences coated onto the carrier particle, wherein said one or more DNA sequences each comprise a promoter operative in the cells of a mammal and a protein coding region coding for an M gene segment protein comprising the sequence set forth in SEQ ID NO:1, which sequence includes at least one antigenic determinant of a second hantavirus different from said first hantavirus, wherein said second hantavirus is selected from the group consisting of Seoul virus, Dobrava virus, Pumuula virus, Hantaan virus, Sin Nombre virus, Black Creek Canal virus, Bayou virus, New York virus, Andes virus, and Laguna Negra virus.

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.

By the above amendments, we have canceled claims 2, 5, 6, 8, 11, 14, 15, 21 and 25 without prejudice or disclaimer. We have amended claims 1, 7, 9, 10, 16, 17, 26 and 27 to clarify our invention and to address the Examiner's concerns under 35 U.S.C. § 112, first and second paragraphs, as outlined in the Office Action dated March 1, 2001.